

PATENT COOPERATION TREATY

From the
INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY

PCT

WRITTEN OPINION
(PCT Rule 66)

To:

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International application No.
PCT/CA 03/00919

International filing date (day/month/year)
17.06.2003

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18.06.2002

International Patent Classification (IPC) or both national classification and IPC
C25C7/02

Applicant
FALCONBRIDGE LIMITED et al.

1. This written opinion is the **first** drawn up by this International Preliminary Examining Authority.
2. This opinion contains indications relating to the following items:
 - I ☒ Basis of the opinion
 - II ☐ Priority
 - III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
 - IV ☐ Lack of unity of invention
 - V ☒ Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
 - VI ☐ Certain documents cited
 - VII ☐ Certain defects in the international application
 - VIII ☐ Certain observations on the international application
3. The applicant is hereby invited to reply to this opinion.

When? See the time limit indicated above. The applicant may, before the expiration of that time limit, request this Authority to grant an extension, see Rule 66.2(d).

How? By submitting a written reply, accompanied, where appropriate, by amendments, according to Rule 66.3. For the form and the language of the amendments, see Rules 66.8 and 66.9.

Also: For an additional opportunity to submit amendments, see Rule 66.4.
For the examiner's obligation to consider amendments and/or arguments, see Rule 66.4 bis.
For an informal communication with the examiner, see Rule 66.6.

If no reply is filed, the international preliminary examination report will be established on the basis of this opinion.
4. The final date by which the international preliminary examination report must be established according to Rule 69.2 is: 18.10.2004

Name and mailing address of the international preliminary examining authority:



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I. Basis of the opinion

1. With regard to the **elements** of the international application (*Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this opinion as "originally filed"*):

Description, Pages

1-9 as originally filed

Claims, Numbers

1-11 as originally filed

Drawings, Sheets

1/2-2/2 as originally filed

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language: , which is:

- ☐ the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

- ☐ the description, pages:
- ☐ the claims, Nos.:
- ☐ the drawings, sheets:

5. ☐ This opinion has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)).

6. Additional observations, if necessary:

V. Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**1. Statement**

Novelty (N)	Claims	1, 8: No
Inventive step (IS)	Claims	2-3,9: No
Industrial applicability (IA)	Claims	1-11:Yes

2. Citations and explanations**see separate sheet**

Re Item V

Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Obscurity arises as to the scope of protection sought. This results from the fact that claim 1 claims "a cathode for use..." and claim 8 claims "a method for fabricating a cathode assembly for use...". Hence, it appears that a cathode assembly should also be claimed in claim 1 in order to render the claim clear, Art. 6 PCT.
2. Claim 8 does not meet the requirements of Article 6 PCT in that the matter for which protection is sought is not clearly defined. The claim attempts to define the subject-matter in terms of the result to be achieved which merely amounts to a statement of the underlying problem: "securing...so as to overlay the area...defining a cavity...". The technical features necessary for achieving this result should be added i.e. as defined starting on p. 7, that the securing and the forming of the cavity is achieved by two pairs of weldings. This feature should also be added to the independent apparatus claim in order to avoid further clarity objections due to obscurity.
3. The features in the apparatus claim 3 relate to a method of using the apparatus rather than clearly defining the apparatus in terms of its technical features. The intended limitations are therefore not clear from this claim, contrary to the requirements of Article 6 PCT. Moreover, claim 3 is a repetition of the last sentence of claim 1, which sentence is also not regarded as related to an apparatus.
4. Documents D1 and D2 both disclose a cathode assembly for use in the refining of metals (for D1 see claim 1 and col. 4, l. 30-36; for D2, see claim 1 and col. 3, l. 39-46), comprising:
 - a substantially flat deposition plate attached along an upper edge thereof by soldering to an elongate hanger bar thereby defining a connection (for D1, see fig. 3 and 4, claim 2; for D2 see fig. 3 and 4, claim 1);
 - a protective cladding abutting said deposition plate and at least partially surrounding said hanger bar such that a cavity is defined in the region of said connection; and the cladding is attached to said deposition plate by means of a pin (for D1, see fig. 3 and claims 2 and 6; for D2, see fig. 3 and col. 3, l. 9-29);

a corrosion resistant material filling said cavity (fig. 3 and col. 4, l. 1-9; for D2, see col. 3, l. 20-29).

Therefore, the subject-matter of claims 1 and 8 is not regarded as novel in light of documents D1 and D2, Art. 33(2) PCT.

5. Documents D1 and D2 both mention that in the prior art the welding is used to join the plate (for D1, see col. 1, l. 34 and for D2, see col. 1, l. 21), thus this feature cannot be regarded as offering a special technical effect.
Hence, the subject-matter of claims 2-3 and 9 is not regarded as inventive, Art. 33(3) PCT.
6.
 - a) Contrary to the requirements of Rule 5.1(a)(ii) PCT, the relevant background art disclosed in the documents D1 and D2 is not mentioned in the description, nor are these documents identified therein.
 - b) The wording "spirit of the invention" occurring in the description (p. 9, last paragraph) casts doubt as to the extent by which the description supports the claims (Art. 6 PCT) and should be deleted (Guidelines C III 4.3a).
7. Provisionally novelty and inventive step could be acknowledged if the applicant overcomes the clarity objections and defines the material filling the cavity into the wording of the independent claims.